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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.                  | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------------|------------------|
| 10/688,018  | 10/17/2003  | David Myr            | MAK-106US                            | 4397             |
| 23122   | 7590        | 11/01/2006           |                                      |                  |
| RATNERPRESTIA<br>P O BOX 980<br>VALLEY FORGE, PA 19482-0980 |             |                      | EXAMINER<br>MEINECKE DIAZ, SUSANNA M |                  |
|   |             |                      | ART UNIT<br>3623                     | PAPER NUMBER     |

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/688,018             | MYR ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Susanna M. Diaz        | 3623                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,9,10 and 12-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9,10 and 12-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This non-final Office action is responsive to Applicant's amendment filed August 14, 2006.

Claims 2, 7, 8, and 11 have been cancelled.

Claim 43 has been added.

Claims 1, 4-6, 9-10, 12, 14-27, 29, 31-32, and 34-42 have been amended.

Claims 1, 3-6, 9, 10, and 12-43 are presented for examination.

2. In Applicant's response, Applicant merely addresses how the claims have been amended in order to overcome the previously pending rejections under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph. In light of Applicant's claim amendments, the rejections under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph have been adapted to address the amended claim language and a new rejection under 35 U.S.C. § 101 has been added. The previously pending claim objection has been withdrawn in response to Applicant's amendment of claim 32.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 3-6, 9, 10, and 12-43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 1 is directed toward a system that comprises various system elements and a method *per se* (e.g., see limitations b and e). Claims are limited to one

Art Unit: 3623

statutory class and claim 1 comprises limitations directed toward both a system and a method *per se*; therefore, claim 1 improperly fails to be limited to a single statutory class. As such, claim 1 is non-statutory.

Dependent claims 3-6, 9, 10, and 12-43 fail to remedy the issues presented in claim 1; therefore claims 3-6, 9, 10, and 12-43 also inherit the same rejection under § 101.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3-6, 9, 10, and 12-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the preamble of claim 1, it is not clear what is meant by “optimization of a of a selected, by the store chain management merchandizing figure-of-merit predictive function.” What does “selected” refer to? (Also, the extra “of a” should be deleted.)

The preamble of claim 1 recites “(revenue, gross profit, net profit).” It is not clear whether these terms are meant to further limit the recited “merchandizing figure-of-merit predictive function” or whether they are potential examples of such a function. Also, it is not clear if these terms are recited in a list of alternatives (i.e., “or”) or an all-inclusive list (i.e., “and”).

Independent claim 1 is directed toward a system that comprises various system elements and a method *per se* (e.g., see limitations b and e). Without clarification of which structural system elements perform the recited method steps, it is not clear how the method steps affect the system as a whole, thereby rendering the recited method steps non-further limiting when addressing the system as a whole (i.e., the method steps merit no weight in the system claim until integrated with structural elements of the system).

Claim 1 recites “the system comprising: a) A historical database connected to the said marketing decision support system...” It is awkward to state that the system comprises the historical database, but then state that the historical database is connected to the system. This makes it sound like the historical database is external to the marketing decision support system and not a part of the system itself.

The fields recited in claim 1a (i.e., date of purchase, time of purchase, bar code, quantity bought, price at the time of purchase) do not structurally affect the system, thereby raising the question of whether or not they are merely non-functional descriptive material.

Claim 1b recites a “method for modeling and optimization of joint effects of pricing and promotion factors, and also of additional factors: product brands, sales discounts, quantity discounts, promotion schedules, days of the week, pre-holiday days, post-holiday days, year seasons, past sales histories, that may influence demands of a plurality of products on sale.” It is not clear if the “additional factors” listed are required or optional. Also, who or what determines which factors “may influence demands...”?

Art Unit: 3623

Upon which objective factors is such a determination based? This determination seems very arbitrary, thereby raising the question of whether the additional factors are all optional.

Claim 1i recites that the secondary database stores necessary filtered data “in a form more suitable for improved reading and processing.” Who or what determines if a form is “more suitable for improved reading and processing”? Upon which objective factors is such a determination based? This determination seems very arbitrary, thereby raising the question of the true metes and bounds of the claim.

Claim 1 recites various system elements and method steps, yet fails to expressly integrate these limitations as a single functioning system. Therefore, claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 4 recites “replacement of missing values...and suitable for construction of integrated pricing and promotion regression models.” It is not clear which element is modified by “suitable for construction...” Also, who or what determines suitability? Upon which objective factors is such a determination based? This determination seems very arbitrary, thereby raising the question of the true metes and bounds of the claim.

Claim 5 appears to further define “bad” data in the phrase “i.e., incomplete, incorrectly formatted,...or highly improbably values...” It is not clear whether the elements recited in this phrase are to be interpreted as alternative interpretations of “bad” data or whether the list is an all-inclusive descriptor of “bad data.” Also, is “bad

Art Unit: 3623

data” limited to one or all of the recited elements recited in this phrase or are these elements merely exemplary (and not necessarily further limiting)?

Claim 6 recites “means for calculating robust summary statistics.” Who or what determines if summary statistics are robust? Upon which objective factors is such a determination based? This determination seems very arbitrary, thereby raising the question of the true metes and bounds of the claim.

Claim 12 recites the phrase “better estimates.” Who or what determines if estimates are better? Upon which objective factors is such a determination based? This determination seems very arbitrary, thereby raising the question of the true metes and bounds of the claim.

Claim 13 recites that “the means for construction of predicted future demands is capable of accounting...” “Capable of” only requires the ability to do something and therefore, does not expressly limit the claim to perform the associated functionality.

Claim 14 recites that “the means for calculating effects of prices on product demands provides for price optimization.” The scope of “provides for” is unclear. For example, does “provides for” merely signify that potentially pertinent data is made available for future use or does it actually require that price optimization be performed?

Claim 15 recites that “the means for calculating effects of display times provides for promotion optimization.” The scope of “provides for” is unclear. For example, does “provides for” merely signify that potentially pertinent data is made available for future use or does it actually require that promotion optimization be performed?

Claim 17 recites various modules (which are presumably meant to be software modules); however, these modules are not expressly executed by any system elements (e.g., a processor or computer). A system is defined by its structural elements and its corresponding functionality. Without express integration with any system elements, the modules fail to have any effect on the system as a whole, thereby raising the question whether the modules merit patentable weight in the system claims. Similar issues arise in claim 32.

Claim 17 recites various modules (in limitations e, f, and g) and have no corresponding functionality; therefore, the metes and bounds of the module descriptions are vague and indefinite.

Claim 17i recites a “confirmation facility module that allows the user to always review price changes computed by the system...” How can such a guarantee be made (i.e., that the user can *always* review price changes)? Also, what metes and bounds are implied by such a guarantee? In other words, are there structural elements that facilitate such a guarantee?

Claim 18 recites “the current product price” and “the product extreme price values.” There is no antecedent basis for these phrases.

Claim 18 recites “optional price range restrictions as imposed by the user under the selected by him optimization scenario.” Is there a word missing after “selected” or does “selected” modify “optimization scenario”? Similar issues arise with claims 19, 20, and 22.



Regarding claim 32, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 38 recites various steps. Are these steps merely made available to the user or are they expressly performed by the user?

Claim 39 recites various steps. Are these steps merely made available to the user or are they expressly performed by the user?

Claim 40 recites various steps. Are these steps merely made available to the user or are they expressly performed by the user?

Claims 3-6, 9, 10, and 12-43 ultimately depend from claim 1 and therefore inherit all § 112 rejections of claim 1 as well as any intervening claims with § 112 rejections.

Appropriate correction is required.

*Because claims 1, 3-6, 9, 10, and 12-43 are so indefinite, no art rejection is warranted as substantial guesswork would be involved in determining the scope and content of these claims. See In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962); Ex parte Brummer, 12 USPQ 2d, 1653, 1655 (BdPatApp&Int 1989); and also In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). Prior art pertinent to the disclosed invention is nevertheless cited (Applicant has cited very relevant art in the IDS filed on October 17, 2003) and Applicant is reminded they must consider all cited art under Rule 111(c) when amending the claims to conform with 35 U.S.C. § 112.*

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Susanna M. Diaz  
Primary Examiner  
Art Unit 3623

October 30, 2006